13

CLAIMS:

1.   Integrated circuit, comprising:
            a plurality of processing modules (M, S), wherein at least one first of said
processing modules (M) requests at least one communication service to at least one second
processing module (S) based on specific communication properties and at least one
5   communication service identification,
            an interconnect means (N) for coupling said plurality of processing modules
(M, S) and for enabling a connection based communication having a set of connection
properties ,
            at least one network interface (NI) associated to said at least one first of said
10   processing modules for controlling the communication between said at least one first of said
plurality of processing modules (M) and said interconnect means (N), and
            a mapping means (A) for mapping the requested at least one communication
service based on said specific communication properties to a connection based on a set of
connection properties according to said at least one communication service identification.
15
2.   Integrated circuit according to claim 1, wherein
            said mapping means (A) is arranged in said at least one network interface (NI).

3.   Integrated circuit according to claim 1 or 2, wherein
20   said communication service identification comprises at least one
communication thread,
            wherein said at least one communication thread is mapped to at least one
connection based on a set of connection properties.

25   4.   Integrated circuit according to claim 1, wherein
            said communication service identification comprises at least one address range
in said at least one second processing module (S),
            wherein said at least one address range is mapped to at least one connection
based on a set of connection properties.

14

5.   Integrated circuit according to claim 3, wherein

said communication service identification further comprises at least one address range in said at least one second processing module (S),

wherein said at least one address range is mapped to at least one connection based on a set of connection properties.

6.   Method of communication service mapping in an integrated circuit, having a plurality of processing modules (M, S), wherein at least one first of said processing modules (M) requests at least one communication service to at least one second processing module (S) based on specific communication properties and at least one communication service identification, comprising the steps of:

coupling said plurality of processing modules (M, S) by an interconnect means (N) and enabling a connection based communication having a set of connection properties,

controlling the communication between said at least one first of said plurality of processing modules (M) and said interconnect means (N) by at least one network interface (NI) associated to said at least one first of said processing modules,

mapping the requested at least one communication service based on said specific communication properties to a connection based on a set of connection properties according to said at least one communication service identification.

7.   Data processing system, comprising

a plurality of processing modules (M, S), wherein at least one first of said processing modules (M) requests at least one communication service to at least one second processing module (S) based on specific communication properties and at least one communication service identification,

an interconnect means (N) for coupling said plurality of processing modules (M, S) and for enabling a connection based communication having a set of connection properties ,

at least one network interface (NI) associated to said at least one first of said processing modules for controlling the communication between said at least one first of said plurality of processing modules (M) and said interconnect means (N), and

a mapping means (A) for mapping the requested at least one communication service based on said specific communication properties to a connection based on a set of connection properties according to said at least one communication service identification.